

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number  
**WO 2004/007398 A1**

(51) International Patent Classification<sup>7</sup>: **C04B 35/115**,  
H01J 61/30, C04B 35/645

(21) International Application Number:  
PCT/IB2003/002980

(22) International Filing Date: 2 July 2003 (02.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
02077784.3 10 July 2002 (10.07.2002) EP

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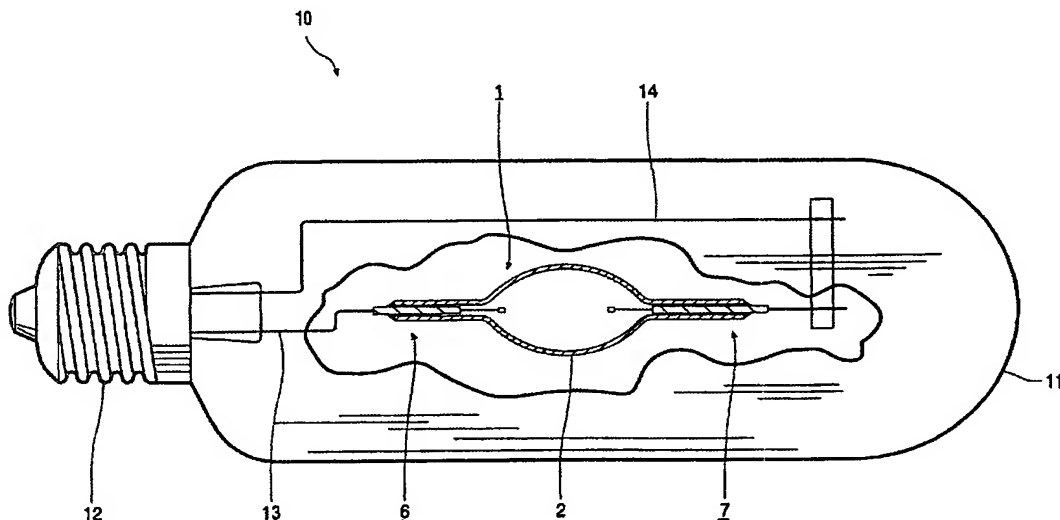
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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,  
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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(54) Title: TRANSPARENT POLYCRYSTALLINE ALUMINIUM OXIDE



(57) Abstract: The present invention relates to highly dense translucent and transparent aluminium oxide components for applications, e.g. in the lighting industry, where a fine crystal size has to be obtained and stabilized for use at temperatures of 800 °C or more. Disclosed are high-strength polycrystalline alumina products which include 0.001 - 0.5 weight-% ZrO<sub>2</sub> stabilizing a fine crystal size < 2 µm or, preferably, < 1 µm if used at temperatures of 800°C or more. The microstructure exhibits an extremely high relative density enabling a high real in-line transmission > 30 % measured over an angular aperture of at most 0.5° at a sample thickness of 0.8 mm and with a monochromatic wavelength of light λ, preferably, of 645 nm.